

Appln. No.: 10/606,606  
Amendment Dated June 28, 2004  
Reply to Office Action of March 26, 2004

MKPA-104US

**Amendments to the Claims:** This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A fiber-coupled optical component housing comprising a substrate having an optical component mount aperture formed therein and a substantially planar fiber mount region adjacent to the optical component mount aperture, wherein the fiber mount region is configured to mount the optical fiber directly to the substrate.

2. (Currently Amended) A fiber-coupled optical component housing ~~according to claim 1, further comprising:~~

a substrate having an optical component mount aperture formed therein and a substantially planar fiber mount region adjacent to the optical component mount aperture; and

a metallic fiber mount pad formed on the substantially planar fiber mount region the metallic fiber mount pad being configured to secure the optical fiber to the substrate with a metallic solder.

3. (Currently Amended) A fiber-coupled optical component housing according to claim ~~1~~2, further comprising one or more electrical contacts formed on the housing, wherein at least one of the one or more electrical contacts is electrically coupled to the metallic fiber mount pad.

4. (Currently Amended) A fiber-coupled optical component housing according to claim ~~1~~2, further comprising means for mounting a lid on the housing.

5. (Currently Amended) A fiber-coupled optical component housing according to claim ~~1~~2, wherein the substrate includes at least an aluminum oxide ceramic.

6. (Currently Amended) A fiber-coupled optical component housing according to claim ~~1~~2, wherein the housing is mounted on a high thermal conductivity base.

Appln. No.: 10/606,606  
Amendment Dated June 28, 2004  
Reply to Office Action of March 26, 2004

MKPA-104US

7. (Original) A fiber-coupled optical component housing according to claim 6, wherein an optical component is secured to the base within an area defined by the optical component mount aperture.

8. (Currently Amended) A fiber-coupled optical component housing according to claim 7, wherein an optical fiber is secured on the ~~substantially planar fiber mountable region~~ metallic fiber mount pad using the metallic solder to optically couple the fiber and the optical component.

9. (Original) A fiber-coupled optical component package comprising:  
  
a high thermal conductivity base;  
  
a fiber-coupled optical component housing joined to a surface of the base and including:  
  
a substrate having an optical component mount aperture formed therein and a substantially planar fiber mount region adjacent to the optical component mount aperture, and  
  
means for mounting a lid on the housing.

10. (Original) A fiber-coupled optical component package according to claim 9, further comprising a metallic fiber mount pad formed on the substantially planar fiber mount region.

11. (Original) A fiber-coupled optical component package according to claim 9, wherein the means for mounting a lid on the housing comprises a metallized seal ring formed on a surface of the housing.

12. (Original) A fiber-coupled optical component package according to claim 9, further comprising an optical component coupled to the base within an area defined by the optical component mount aperture.

Appl. No.: 10/606,606  
Amendment Dated June 28, 2004  
Reply to Office Action of March 26, 2004

MKPA-104US

13. (Original) A fiber-coupled optical component package according to claim 12, further comprising an optical fiber coupled to the substantially planar fiber mount region to optically couple the fiber to an output coupler of the optical component.

14. (Original) A fiber-coupled optical component package according to claim 13, further comprising a package lid placed over one or more of the housing, the optical component, and a portion of the fiber.

15. (Original) The fiber-coupled optical component package according to claim 14, wherein the lid is secured to the housing by at least one of an epoxy and a solder.

16. (Original) The fiber-coupled optical component package according to claim 14, further comprising a fiber sealant applied at gaps between the fiber and one or more of the base, the lid, and the housing.

17. (Original) The fiber-coupled optical component package according to claim 16, wherein the fiber sealant is selected from a group consisting of an epoxy, a solder, and a silicone.

18. (Currently Amended) A method for forming a fiber-coupled optical component package, comprising the steps of:

- a) providing a package base having a high thermal conductivity;
- b) forming a ceramic housing having an optical component mount aperture;
- c) securing the ceramic housing to the base; and
- d) designating a substantially planar fiber mount region on a surface of the ceramic housing adjacent to the optical component mount aperture for mounting an optical fiber directly on the ceramic housing.

19. (Original) A method according to claim 18, further comprising the steps of:

Appln. No.: 10/606,606  
Amendment Dated June 28, 2004  
Reply to Office Action of March 26, 2004

MKPA-104US

- e) securing an optical component to the base within an area defined by the optical component mountable aperture;
- f) coupling an optical fiber to the substantially planar fiber mount region to optically couple the fiber and an output coupler of the optical component.

20. (Original) A method according to claim 19, wherein a non-metallized optical fiber is coupled directly to the substantially planar fiber mount region with at least a glass solder.

21. (Currently Amended) ~~A method according to claim 19, further including the step of for forming a fiber-coupled optical component package, comprising the steps of:~~

- a) providing a package base having a high thermal conductivity;
- b) forming a ceramic housing having an optical component mount aperture;
- c) securing the ceramic housing to the base;
- d) designating a substantially planar fiber mount region on a surface of the ceramic housing adjacent to the optical component mount aperture;
- e) forming a metallic fiber mount pad on the substantially planar fiber mount region to which a metallized optical fiber is to be coupled with a metallic solder
- f) securing an optical component to the base within an area defined by the optical component mountable aperture;
- g) securing an optical fiber to the metallic fiber mount pad using a metallic solder to optically couple the fiber and an output coupler of the optical component.

Appln. No.: 10/606,606  
Amendment Dated June 28, 2004  
Reply to Office Action of March 26, 2004

MKPA-104US

22. (Currently Amended) A method according to claim ~~19~~21, further comprising the steps of:

- g) placing a package lid over one or more of the housing, the optical component, and a portion of the fiber; and
- h) securing the package lid to at least the housing.

23. (Original) The method according to claim 22, wherein the package lid is secured to at least the housing by applying at least one of an epoxy and a solder between the lid and the housing.

24. (Original) The method according to claim 22, further comprising the step of:

- g) sealing the fiber by filling gaps between the fiber and one or more of the package base, the package lid, and the package housing.

25. (Original) The method according to claim 24, wherein the gaps are filled with at least one of an epoxy, a solder, and a silicone.